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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/549,619

02/28/2006

Thomas Franch

FRANCH4A

8187

1444 7590 04/28/2009  
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EXAMINER

CALAMITA, HEATHER

ART UNIT

PAPER NUMBER

1637

MAIL DATE

DELIVERY MODE

04/28/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/549,619	<b>Applicant(s)</b> FRANCH ET AL.	
	<b>Examiner</b> HEATHER G. CALAMITA	<b>Art Unit</b> 1637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) 10,12,13,22,23,38,39,57,74,78-80,84 and 121-123 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 7, 9, 14, 15, 24, 26, 29, 68, 71, 91, 124, 126, 130 and 131 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/10/2008</u>  | 6) <input type="checkbox"/> Other: _____                          |

Continuation of Disposition of Claims: Claims pending in the application are 1,7,9,10,12,13,22-24,26,29,38,39,57,68,71,74,78-80,84,91,121-124,126,130 and 131.

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## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of the species in the reply filed on December 31, 2008, is acknowledged. The traversal is on the ground(s) that no reason was given in the Lack of Unity requirement. This argument is not persuasive because PCT rules do not require a reason to hold unity lacking but rather that there is not unity of invention because of disclosure in the prior art. This requirement was met as outlined in the Lack of Unity mailed April 21, 2008.

The requirement is still deemed proper and is therefore made FINAL.

### ***Status of Application, Amendments, and/or Claims***

2. Amendments of December 31, 2008, have been received and entered in full. Claims 1,7,9,10,12,13,22-24,26,29,38,39,57,68,71,74,78-80,84,91,121-124,126,130 and 131 are pending. Claims 10,12,13,22,23,38,39,57,74,78-80,84 and 121-123 are withdrawn as being directed to non-elected subject matter. Claims 1, 7, 9, 14, 15, 24, 26, 29, 68, 71, 91, 124, 126, 130 and 131 are under examination.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 7, 9, 14, 15, 24, 26, 29, 68, 71, 91, 124, 126, 130 and 131 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. (US 2003/0113738A1).

Liu et al. disclose methods, compositions and systems for synthesizing, selecting, amplifying and evolving non-natural molecules based on nucleic acid templates. The sequence of a nucleic acid template is used to direct the synthesis of non-natural molecules such as unnatural polymers and small molecules. Upon selection of a molecule, its encoding nucleic acid template may be amplified and/or evolved to yield the same molecule or related molecules for re-screening (see the abstract). In general, these methods use an evolvable template to direct the synthesis of a chemical compound or library of chemical compounds (i.e., the template actually encodes the synthesis of a chemical compound). Based on a library encoded and synthesized using a template such as a nucleic acid, methods are provided for amplifying, evolving, and screening the library. In certain embodiments of special interest, the chemical compounds are compounds that are not or do not resemble nucleic acids or analogs thereof. In certain embodiments the chemical compounds of these template encoded combinatorial libraries are polymers and more preferably are unnatural polymers (i.e. excluding natural peptides, proteins, and polynucleotides). In other embodiments, the chemical compounds are small molecules.

In certain embodiments, the method of synthesizing a compound or library of compounds comprises first providing one or more nucleic acid templates, which one or more nucleic acid templates optionally have a reactive unit associated therewith. The nucleic acid template is then contacted with one or more transfer units designed to have a first moiety, an anti-codon, which hybridizes to a sequence of the nucleic acid and is associated with a second moiety a reactive unit

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which includes a building block to the compound to be synthesized. Once these transfer units have hybridized to the nucleic acid template in a sequence specific manner, the synthesis of the chemical compound can take place due to the interaction of reactive moieties present on the transfer units and/or nucleic acid template. Significantly, the sequence of the nucleic acid can later be determined to decode the synthetic history of the attached compound and thereby its structure. It will be appreciated that the method described herein may be used to synthesize one molecule at a time or may be used to synthesize thousands to millions of compounds using combinatorial methods (see the Summary of the Invention, pages 6-10, figures 3, 4, 12B for example).

#### *Summary*

4. No claims were allowable.

#### *Correspondence*

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heather G. Calamita whose telephone number is 571.272.2876 and whose e-mail address is [heather.calamita@uspto.gov](mailto:heather.calamita@uspto.gov). However, the office cannot guarantee security through the e-mail system nor should official papers be transmitted through this route. The examiner can normally be reached on Monday through Thursday, 7:00 AM to 5:30 PM.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Gary Benzion can be reached at 571.272.0782.

Papers related to this application may be faxed to Group 1637 via the PTO Fax Center using the fax number 571.273.8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to 571.272.0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of

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their own application file folder(s) as well as general patent information available to the public.  
For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

/Heather G. Calamita, Ph.D./

Examiner, Art Unit 1637